

$$\begin{pmatrix} 1 & 10 & 14 \\ 2 & 14 & 56 \end{pmatrix} \begin{pmatrix} x_2 \\ x_3 \end{pmatrix} = \begin{pmatrix} 3 \\ 0 \\ -4 \end{pmatrix}.$$

11. For 2 adjacent in the adjacency

$$\begin{cases} LY = B \\ L^T LX = Y \end{cases} \text{ Hence } L^T LX = B$$

$$LY = B \Leftrightarrow$$



$$\Leftrightarrow \begin{pmatrix} 1 & 0 & 0 \\ 1 & 3 & 0 \\ 2 & 4 & 6 \end{pmatrix} \begin{pmatrix} y_1 \\ y_2 \\ y_3 \end{pmatrix} = \begin{pmatrix} 3 \\ 0 \\ -4 \end{pmatrix}$$

$$\Leftrightarrow \begin{vmatrix} y_1 \\ y_1 + 3y_2 \\ 2y_1 + 4y_2 + 6y_3 \end{vmatrix} = \begin{vmatrix} 3 \\ 0 \\ -4 \end{vmatrix}$$

$$\Rightarrow \begin{vmatrix} y_1 = 3 \\ y_2 = -1 \\ y_3 = -1 \end{vmatrix}$$

$$\text{Let } L^T LX = Y \Leftrightarrow \begin{pmatrix} 1 & 1 & 2 \\ 0 & 3 & 4 \\ 0 & 0 & 6 \end{pmatrix} \begin{pmatrix} x_1 \\ x_2 \\ x_3 \end{pmatrix} = \begin{pmatrix} 3 \\ -1 \\ -1 \end{pmatrix}$$

$$\Leftrightarrow \begin{vmatrix} x_1 + x_2 + 2x_3 = 3 \\ 3x_2 + 4x_3 = -1 \\ 6x_3 = -1 \end{vmatrix}$$

$$\Leftrightarrow \boxed{\begin{vmatrix} x_3 = -1/6 \\ x_2 = -1/9 \\ x_1 = 31/9 \end{vmatrix}}$$

Q6] voir annale 2002 asten!

Q7] voir annale 2002.

$$\text{for } L = 1:N \quad \Delta \text{ size } L$$

$$\text{end } x(L) = \left(\frac{L-1}{N-1} \right) d;$$

$$\text{Q8] } N = 10;$$

$$x(6) = 1/2.$$

$$\text{for } k = 1:N$$

$$x(k) = (2 * k + 1) / (3 * k + 2);$$

$$x(k) = x(k-1);$$

end

Q15] ~~the~~ pour annale 2003.